

RESTRICTION REQUIREMENT:

By this Office Action, the Examiner has required restriction to one of the following inventions under 35 U.S.C. §121:

- Group I. Claim 1-7, drawn to a mammalian DARPP-32 polypeptide.
- Group II. Claims 8-10, drawn to a phosphorylation state-specific antibody that specifically recognizes Thr75-phosphorylated DARPP-32.
- Group III. Claims 11-12, drawn to an *in vitro* method of identifying compounds that modulate the phosphorylation state of Thr75 DARPP-32.
- Group IV. Claims 11-15, drawn to an *in vivo* method of identifying compounds that modulate the phosphorylation state of Thr75 DARPP-32.
- Group V. Claims 16-21, drawn to a method of treating dopamine dysregulation in an individual by administering an agent that inhibits the phosphorylation of Thr75-DARPP-32.
- Group VI. Claims 16-18, drawn to a method of treating dopamine dysregulation in an individual by administering an agent that promotes the dephosphorylation of Thr75-DARPP-32.

Responsive to the Requirement for restriction, Applicants elect to prosecute the invention of Group V, with traverse, Claims 16-21, which are drawn to a method of treating dopamine dysregulation in an individual by administering an agent that inhibits the phosphorylation of Thr75-DARPP-32.

Applicants respectfully request reconsideration of the Requirement for Restriction, or in the alternative, modification of the Restriction Requirement to allow prosecution of more than one group of Claims designated by the Examiner in the present Application, for the reasons provided as follows.

Under 35 U.S.C. §121 "two or more independent and distinct inventions ... in one Application may ... be restricted to one of the inventions." Inventions are "independent"

if "there is no disclosed relationship between the two or more subjects disclosed" (MPEP 802.01). The term "'distinct'" means that "two or more subjects as disclosed are related ... but are capable of separate manufacture, use or sale as claimed, AND ARE PATENTABLE OVER EACH OTHER" (MPEP 802.01) (emphasis in original).

However, even with patentably distinct inventions, restriction is not required unless one of the following reasons appear (MPEP 808.02):

1. Separate classification
2. Separate status in the art; or
3. Different field of search.

Further, under Patent Office Examining Procedures, "[i]f the Search and Examination of an entire Application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions" (MPEP 803, Rev. 8, May 1988) (emphasis added).

Applicants respectfully submit that the groups designated by the Examiner fail to define compositions and methods, with properties so distinct as to warrant separate Examination and Search. Claims 16-18 of Group VI are drawn to methods of treating dopamine dysregulation in an individual by administering an agent that promotes the dephosphorylation of Thr75-DARPP-32 that are fundamentally related to Claims 16-21 of Group V, drawn to methods of treating dopamine dysregulation in an individual by administering an agent that inhibits the phosphorylation of Thr75-DARPP-32. The search for any of the methods separately classified by the Examiner as the invention of Group VI would require an additional search of the identical classes wherein the methods of Group V are classified, thus resulting in a duplicate search for the same material. Thus, Applicants submit that the Search and Examination of the entire Application, or, at least, of Group VI with Group V can be made without serious burden, and therefore the Examiner must examine all of the claims of the Application on the

merits.

The Examiner's assertions to the contrary notwithstanding, Applicants respectfully submit that conjoint examination and inclusion of all of the Claims of the present Application would not present an undue burden on the Examiner, and accordingly, withdrawal of the Requirement for Restriction, or, at the least, modification to include the Claims drawn to Group V and Group VI is in order.

ELECTION OF SPECIES:

In addition, the Examiner has asserted that Claims 20-21 are generic to a plurality of disclosed distinct species comprising roscovitine, indirubin, and paullone and has further required that the election of a single species under 35 U.S.C. §121.

In response to the Examiner's requirement to an election of Species, the Applicants elect the species having indirubin, without traverse. Applicants believe that Claims 16-19, and 21 of Groups V and VI read on indirubin.

Attached hereto is a marked up version of the changes made to the Specification by the current amendment. The attached page is captioned "Version with marking to show changes made."

No fees are believed to be necessitated by the foregoing Response. However, should this be erroneous, authorization is hereby given to charge Deposit Account No. 11-1153 for any underpayment, or credit any overages.

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In view of the above, withdrawal of the Requirement for the Restriction is requested, and an early action on the merits of the Claims is courteously solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "Michael D. Davis", written over a horizontal line.

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“VERSION WITH MARKING TO SHOW CHANGES MADE.”

The bridging paragraph between Pages 15 and 16 has been amended as follows:

Figure 7 shows the alignment of the amino acid sequences of various DARPP-32 isoforms (bovine, SEQ ID NO:4; rat, SEQ ID NO:3; and mouse, SEQ ID NO:2). The amino acid sequences as shown are deduced from their corresponding cDNA nucleic acid sequences. The alignments include spaces introduced by dashes where necessary. The numbers refer to the position of amino acids relative to the bovine sequence. The total number of amino acids is indicated at the end of each sequence. Nonconserved amino acid differences are shown in bold. Underlined sequences represent synthetic peptides that have been used to generate antibodies, including those that are phosphorylation state-specific. The phospho-peptide used to generate the P-Thr75 DARPP-32 phosphorylation state-specific antibody was CAYTPPSLK (SEQ ID NO:5), where the threonine residue was chemically phosphorylated.